



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## NOTES ON THE BREEDING BIRDS OF PENNSYLVANIA AND NEW JERSEY.

BY RICHARD C. HARLOW.

*(Continued from p. 29.)*

74. **Otocoris alpestris praticola**. PRAIRIE HORNED LARK.—An irregularly distributed breeding bird over most of Pennsylvania north of Northampton, Schuylkill, Northumberland, Cumberland and Franklin Counties. I have found it nesting on the Pocono plateau and in Huntington, Center, and Greene Counties. Data on seven nests give: average set, 3 (4-5); average date, March 25 (March 18); a second set, May 20.

75. **Cyanocitta cristata cristata**. BLUE JAY.—Breeds commonly, though in some places locally, throughout both states. Data on sixteen nests give: average set, 5 (4-6); average date, May 5 (April 29-June 17).

76. **Corvus corax principalis**. NORTHERN RAVEN.—Does not now breed in New Jersey and is nearing extinction in Pennsylvania, making a last stand in the mountains of Snyder, Mifflin, Center, Blair, Clinton, Union, Juniata and Huntington Counties. During 1917 only one pair out of five previously located was present. Nests have seldom been found nearer together than thirty miles, and all have been located on cliffs with one exception, that one being in a pine tree. Data on ten nests give the following: average set, 5 (4); average date, March 4 (February 27-April 12).

77. **Corvus brachyrhynchos brachyrhynchos**. CROW.—Nests abundantly throughout, even along the sea coast of New Jersey with the Fish Crows. Data recorded on 194 nests give: average set, 5 (3-6); average date April 10 (March 26-May 20).

78. **Corvus ossifragus**. FISH CROW.—Nests commonly through southern New Jersey being especially abundant in Cape May County where they breed in colonies as well as singly. In Pennsylvania I have found them nesting in the valleys of the Delaware and Susquehanna as far north as Bucks and Dauphin Counties. Data on thirty-two nests give: average set 5 (4-6); average date, May 14 (April 19-May 24).

79. **Sturnus vulgaris vulgaris**. STARLING.—Now breeding over practically the entire state of New Jersey and well established in Pennsylvania as far west as Altoona, Blair County. It reached Wayne and Center Counties and bred there in 1917. Data on eleven nests give: average set 5 (4-6); average date, April 28 (April 20-May 14).

80. **Dolichonyx oryzivorus**. BOBOLINK.—Very locally distributed in Pennsylvania in the breeding season. They occur regularly as near Philadelphia as Ambler, Montgomery Co. and Newtown, Bucks Co., and I once saw a pair as far south as Tinicum, Delaware Co., where however,

their breeding must be accidental. I have found them common in Warren Co., scarce in Pike, Wayne and Center Counties and one colony in Fayette Co., the most southern locality known to me. They are reported breeding in northern New Jersey but I have had no personal experience in that region. I have data on three nests: 1, Warren, Warren Co., June 2, 1912, six eggs; 2, State College, Center Co., May 30, 1915, four eggs; 3, Oak Hall, Center Co., May 31, 1915, five eggs.

81. **Molothrus ater ater.** COWBIRD.—Fairly common but local in southern New Jersey and somewhat local in Pennsylvania being scarce in the mountainous sections. Data on forty-five eggs: average date May 28 (May 9–June 24). Most in a single nest three, in the nest of a Field Sparrow.

82. **Agelaius phoeniceus phoeniceus.** RED-WINGED BLACKBIRD.—Abundant breeder throughout, but rarer in the northern counties of Pennsylvania. Data on 136 nests give: average set, 4 (3–5); average date, first sets, May 18 (earliest May 7), second sets, June 15 (latest August 4).

83. **Icterus spurius.** ORCHARD ORIOLE. — Generally common throughout southern New Jersey. Common in Pennsylvania south of the middle of the state; absent in the northern counties and in the mountains. Breeds regularly in Center County. Data on twelve nests give: average set, 4 (3–5); average date, May 30 (May 25–June 12).

84. **Icterus galbula.** BALTIMORE ORIOLE.—I have not found this species nesting in New Jersey south of the latitude of Philadelphia. In Pennsylvania it is rather scarce in the southern counties but very common in the northern half of the state. Data on thirty-seven nests give: average set, 5 (3–6); average date, May 28 (May 23–June 20).

85. **Quiscalus quiscula quiscula.** PURPLE GRACKLE.—Nests commonly throughout both states east of the mountains even in some of the ridges east of the main Alleghanies and at Tobyhanna in the Poconos. Data on seventy-two nests give: average set, 5 (3–6); average date, April 28 (April 22–May 14).

86. **Quiscalus quiscula æneus.** BRONZED GRACKLE.—Nests very commonly west of the Alleghanies. Nests and dates differ in no respects from those of the last.

87. **Carpodacus purpureus purpureus.** PURPLE FINCH.—I have found the Purple Finch breeding commonly only in Monroe and Warren Counties and once in Pike. Of three nests found in Monroe County between June 9 and June 16, one contained four half fledged young and two were just being completed.

88. **Loxia curvirostra minor.** RED CROSSBILL.—The sporadic nesting habits of the Crossbill render its breeding possible almost anywhere. It undoubtedly nests at times in the mountainous districts of Pennsylvania and I have seen small flocks in summer rarely in Pike and Wayne Counties, while in Center County, on March 26, 1916, I found two mated pairs, the males singing.

89. **Astragalinus tristis tristis.** GOLDFINCH.—Breeds commonly

though sometimes locally throughout both states. Data on fifty-three nests give: average set, 5 (3-6); average date, July 26 (July 10-September 3).

90. ***Spinus pinus***. PINE SISKIN.—The same remarks apply to this species as to the Crossbill. During the spring of 1917 they remained until May 15 in Center County and until June 8 in Wayne but showed no intention of breeding. A large number did nest in Warren County, however, in 1912, and a set of three eggs taken there on April 30, 1912, is in my collection.

91. ***Poœcetes gramineus gramineus***. VESPER SPARROW.—Very common, breeding throughout. Data on twenty-six nests give: average set, 4 (3-5); average date, May 8 (May 2-June 13).

92. ***Passerculus sandwichensis savanna***. SAVANNAH SPARROW.—I have failed to find this bird breeding in southern New Jersey. In Pennsylvania it breeds most commonly in Warren County so far as my experience is concerned; regularly but rather uncommonly in Center County, and rarely in Pike and Wayne. These remarks are based mainly upon the presence of the birds in summer as I have found but two nests: 1, State College, Center Co., Pa., July 20, 1911, two eggs; 2, Warren, Warren Co., Pa., May 19, 1912, four eggs.

93. ***Ammodramus savannarum australis***. GRASSHOPPER SPARROW.—Locally common in both states but becoming rare in the northern mountainous counties of Pennsylvania. I noted it in summer for the first time in Wayne and Pike Counties in 1917, one pair in each. Data on ten nests give: average set, 4 or 5 (rarely 3); average date, May 28 (May 22-August 4).

94. ***Passerherbulus henslowi henslowi***. HENSLOW'S SPARROW.—Breeds regularly and fairly commonly in Ocean, Burlington, Atlantic and Cape May Counties, New Jersey. In 1913 I discovered a small colony in Huntington County, Pennsylvania, my only breeding record for the state. Data on nine nests from New Jersey and three from Pennsylvania give: average set, 4 (rarely 5); average date, June 4 (May 26-July 16).

95. ***Passerherbulus caudacutus caudacutus***. SHARP-TAILED SPARROW.—Breeds commonly on the coast marshes of New Jersey where I have found it much more plentiful than the Seaside Sparrow, especially from Atlantic to Ocean County. Data on forty-five nests give: average set, 4 (sometimes 5); average date, June 4 (May 26-July 12).

96. ***Passerherbulus maritimus maritimus***. SEASIDE SPARROW.—Common breeder on the New Jersey coast marshes, being more abundant in Cape May County than elsewhere. Data on nine nests give: average set, 4 (3-5); average date, June 2 (May 30-July 5).

97. ***Chondestes grammacus grammacus***. LARK SPARROW.—I saw a pair of these birds on May 11, 1914, evidently breeding, near Alleghany, Pa.

98. ***Zonotrichia albicollis***. WHITE-THROATED SPARROW.—I have noticed this bird as a fairly common summer resident at Pocono Lake, Monroe County, Pa., and nests have been found there by others.

99. **Spizella passerina passerina.** CHIPPING SPARROW.—Generally abundant. Data on sixty-seven nests give: average set, 4 (2-3); average date, May 15 (May 11-July 6).

100. **Spizella pusilla pusilla.** FIELD SPARROW.—Generally abundant. Data on ninety-four nests give: average set, 4 (3-5); average date, first sets, May 8; second sets, June 20; latest August 6.

101. **Junco hyemalis hyemalis.** JUNCO.—I have found the Junco breeding regularly in the following counties in Pennsylvania: Pike, Monroe, Wayne, Sullivan, Lycoming, Cameron, Elk, Forest, Clinton and Blair, and far more commonly in Warren. It also breeds in Fayette County and the question arises whether these latter birds may not be referable to the Carolina form. Data on sixteen nests give: average set, 4(3-5); average date, May 20 (May 12-July 20).

102. **Melospiza melodia melodia.** SONG SPARROW.—One of the most abundant and regularly distributed birds. Data on 172 nests give: average set, 4 or 5; average date, May 4 for first sets, earliest, April 26; June 20 for second sets, latest, August 10.

103. **Melospiza georgiana.** SWAMP SPARROW.—In New Jersey I have found the Swamp Sparrow nesting only on the Delaware marshes. It does not seem to occur in summer along the coast. In Pennsylvania it nests abundantly along the Delaware marshes as far north as Bucks County and it outnumbers all the birds found in the localities where it breeds. Sometimes I have found as many as twenty-five nests in a single day. In northern Pennsylvania I have not found it, but it nests in Fayette County in the southwestern part of the state. Data on 186 nests give: average set 4 (3-5, and in one instance 8, although this was certainly a case of two birds making use of the same nest); average date, May 28 (May 14-July 12).

104. **Pipilo erythrophthalmus erythrophthalmus.** TOWHEE.—Common and generally distributed. Data on fourteen nests give: average set, 4 (3-5); average date, May 20 (May 15-August 4).

105. **Cardinalis cardinalis cardinalis.** CARDINAL.—Common in New Jersey south of Trenton, and in southern Pennsylvania, extending farther north along the river valleys, and as far as Center County where it breeds rarely but regularly. Nests also in Greene County in the southwestern corner of the state. Data on sixteen nests give: average set, 3 (2-4); average date, May 1 (April 8-July 15).

106. **Zamelodia ludoviciana.** ROSE-BREADED GROSBILL.—In New Jersey I have found it nesting only along the Delaware above Trenton, while in Pennsylvania it breeds regularly near Newtown, Bucks County, and I have found it in summer in the following counties: Pike, Monroe, Wayne, Warren, Clarion, Venango and Alleghany, being especially common in the last. Data on nine nests give: average set, 4 (3-5); average date, May 25, latest, June 13.

107. **Passerina cyanea.** INDIGO BUNTING.—Common and generally

distributed. Data on thirty-seven nests give: average set, 4 (sometimes 3); average date, June 4 (May 28–August 15).

108. **Piranga erythromelas.** SCARLET TANAGER.—Regular but rather scarce breeder in southeastern Pennsylvania and southern New Jersey but much more common in the northern and mountainous portions and in southwestern Pennsylvania. Data on fourteen nests give: average set, 3–4 (rarely 5); average date, June 3 (May 26–August 14).

109. **Progne subis subis.** PURPLE MARTIN.—Common summer resident in Cape May, Cumberland, Atlantic, and Burlington Counties, New Jersey. Very local in eastern Pennsylvania where I have found it nesting in Chester and Monroe Counties. A common breeder in Greene County in the southwestern corner. Absent from the northern counties. Data on eleven nests give: average set, 5 (4–6); average date, June 2.

110. **Petrochelidon lunifrons lunifrons.** CLIFF SWALLOW.—Nests abundantly in the northern half of Pennsylvania and locally in the southern counties. I have not found it in southern New Jersey. Data on sixty-two nests give: average set, 4 (3–5); average date, June 4 (May 26–July 2).

111. **Hirundo erythrogastra.** BARN SWALLOW.—Very common summer resident in most of the area but rather scarce in the Philadelphia region. Data on seventy-five nests give: average set, 5 (3–6); average date, May 30 (May 12–July 7).

112. **Iridoprocne bicolor.** TREE SWALLOW.—Breeds commonly in Cape May, Cumberland and Atlantic Counties, New Jersey. In Pennsylvania I have found them only about a few ponds in Pike and Monroe Counties and on a pond at Scotia, Center County. Data on nine nests give: average set 5 (4–6); average date, May 28 (May 19–June 16).

113. **Riparia riparia.** BANK SWALLOW.—Very common summer resident in the Delaware Valley in both states and along the Susquehanna Valley in Pennsylvania. I have not found it elsewhere. Data on forty-five nests give: average set, 5 (4–6); average date, May 20 (May 14–June 18).

114. **Stelgidopteryx serripennis.** ROUGHED-WINGED SWALLOW.—Nests commonly in Camden and Burlington Counties, New Jersey; I have also found its nest once in the pine barrens in Gloucester County and once in a sand dune in Cape May County. In Pennsylvania it breeds regularly in the southern half of the state pushing up the river valleys rarely to Stroudsburg, Monroe County, but commonly to Center County, and has even been found breeding at Warren, Warren County. Data on eighteen nests give: average set, 6 or 7 (5); average date, May 20 for southern Pennsylvania and New Jersey; May 27 for northern Pennsylvania.

115. **Bombycilla cedrorum.** CEDAR WAXWING.—I have never found the Waxwing breeding in southern New Jersey. In Pennsylvania it is fairly distributed but only common in the northern counties. Data on fourteen nests give: average set, 4 (5); average date, June 25 (June 5–August 19).

116. **Lanius ludovicianus migrans.** MIGRANT SHRIKE.—A regular

though not common breeder in Erie County, Pennsylvania, but not known elsewhere except as a migrant. Data on two nests are: 1, East Springfield, Pa., May 8, 1915, four eggs; 2, East Springfield, Pa., May 9, 1915, five eggs.

117. **Vireosylva olivacea.** RED-EYED VIREO.—One of the most abundant breeding birds of the woodland. Data on forty-eight nests give: average set, 3 (2–4); average date, June 6 (May 26–June 14).

118. **Vireosylva gilva gilva.** WARBLING VIREO.—In New Jersey I have found this species nesting only along the Delaware from Trenton to Belvidere. In Pennsylvania it is very local except in the northern and mountainous districts, where it is not found at all. Data on five nests give: average set, 3 or 4; average date, Greene County, May 22; Center County, May 28.

119. **Lanivireo flavifrons.** YELLOW-THROATED VIREO.—I have not found this Vireo nesting in southern New Jersey but from Camden north it is a regular breeder. In Pennsylvania it is a rather scarce though regular breeding bird throughout the state, although contrary to the statement in Stone's 'Birds of Eastern Pennsylvania and New Jersey,' I have found it more commonly in the southern portion. Data on eight nests from Philadelphia, Montgomery, Center and Warren Counties give: average set, 4 (sometimes 3); average date, June 4, earliest May 23.

120. **Lanivireo solitarius solitarius.** BLUE-HEADED VIREO.—A regular and fairly common breeder in the northern and mountainous parts of Pennsylvania from Pike and Warren Counties south to Huntington, breeding as near Philadelphia as the Delaware Water Gap. Data on nine nests give: average set, 4 (sometimes 3); average date, June 4 (May 15–July 2).

121. **Vireo griseus griseus.** WHITE-EYED VIREO.—Very common in the Cedar swamps of southern New Jersey but in Pennsylvania I have found it only as a rather scarce breeder in parts of Delaware and Chester Counties. A set of four eggs was taken in Cape May County, May 23, 1908.

122. **Mniotilta varia.** BLACK AND WHITE WARBLER.—Breeds regularly throughout both states but very scarce in southeastern Pennsylvania; most plentiful in the mountains. Data on twelve nests give: average set, 5 (3–4); average date, May 20 (May 14–June 10).

123. **Helmitheros vermivorus.** WORM-EATING WARBLER.—I have never found this species in southern New Jersey. In Pennsylvania it breeds in Chester, Delaware and Bucks Counties and rarely in Philadelphia also in Greene and Alleghany in the western part of the state. It is a Carolinian species but pushes up the valleys to laurel covered hillsides well into the mountains, and I have found it breeding in Huntington and southern Center Counties, in the same ravines with the Canadian and Black-throated Blue Warblers. Data on thirteen nests give: average set, 5 (3–6); average date, for eastern Pennsylvania (5 nests), May 30; for Center County (3 nests), May 26; for Greene County (5 nests), May 25.

124. **Vermivora pinus.** BLUE-WINGED WARBLER.—In southern New Jersey I have found this bird but three times in the breeding season, once

at Bennett and twice at Clementon. In Pennsylvania it breeds commonly in the southeastern counties especially in parts of Bucks, Chester, Delaware, and Montgomery. Data on nineteen nests give: average set, 5 (3-6); average date, May 28 (May 24-June 19).

125. ***Vermivora chrysoptera***. GOLDEN-WINGED WARBLER.—I have one summer record for New Jersey, near the Delaware Water Gap. In Pennsylvania it is a regular but very local breeder in Pike, Monroe, Wayne and Huntington Counties; also in Greene and Alleghany Counties in the western part of the state. I have found it most common in Stone Valley, Huntington County. Data on five nests give: average set, 5 (sometimes 4); average date May 25 (May 22-June 4).

126. ***Vermivora rubricapilla rubricapilla***. NASHVILLE WARBLER.—I have found the Nashville Warbler only in two northern bogs at Pocono Lake and Tobyhanna, Monroe County, Pa. Two nests are as follows: 1, Pocono Lake, Pa., June 18, 1907, two eggs; 2, Pocono Lake, Pa., June 27, 1914, four eggs.

127. ***Compsothlypis americana usneæ***. NORTHERN PARULA WARBLER.—Nests plentifully in parts of Cape May, Atlantic and Cumberland Counties, New Jersey. In Pennsylvania it breeds regularly in Huntington County and along the Alleghanies to Monroe and Pike and west to Warren County. Data on five nests give: average set, 4 (sometimes 3); average date for southern New Jersey, (4 nests) May 24; for Pennsylvania (1 nest) Huntington Co., June 4.

128. ***Dendroica æstiva æstiva***. YELLOW WARBLER.—A common breeder in certain places but locally distributed. Data on twenty-one nests give: average set, 4 (3-5); average date, May 26 (May 18-June 23).

129. ***Dendroica cærulescens cærulescens***. BLACK-THROATED BLUE WARBLER.—Regular and common breeder from Huntington to Fayette Counties and north to Pike and Warren covering practically all of the mountainous section of the state. Especially common in Pike and Wayne Counties on the Pocono plateau. Data on 35 nests give: average set, 4 (3-5—very rarely 5); average date, May 30 (May 24-June 23).

130. ***Dendroica magnolia***. MAGNOLIA WARBLER.—Common breeder in the higher mountains from Blair north to Warren and Pike Counties, Pa. Scarce south of Blair and Center. Data on eighteen nests give: average set, 4 (3-5); average date, June 4 (May 27-June 20).

131. ***Dendroica cerulea***. CERULEAN WARBLER.—I have definite breeding records only from Greene and Alleghany Counties where it is a regular summer resident. Data on four nests from Greene Co., give: average set, 4; average date, May 26 (May 20-June 3).

132. ***Dendroica pensylvanica***. CHESTNUT-SIDED WARBLER.—In New Jersey I have found it breeding near the Water Gap and in Pennsylvania it is a common summer resident from Fayette and Franklin Counties northward throughout all the mountainous and northern counties. Data on twenty-one nests give: average set, 4 (3-5); average date, June 1 (May 25-June 18).



133. **Dendroica fusca.** BLACKBURNIAN WARBLER.—Nests in the mountainous regions of Pennsylvania from Huntington County north to Warren and Pike, most common northward. I consider its nest the hardest to find of all our nesting birds. Data on seven nests give: average set, 3 or 4; average date, June 1 (May 26–June 29).

134. **Dendroica virens.** BLACK-THROATED GREEN WARBLER.—Same range as the preceding, though strange as it may appear, it seems to be more common in Fayette and Huntington Counties than farther north where the Canadian element is more predominant. Data on eight nests give: average set, 4 (sometimes 3); average date, June 1 (May 24–July 6).

135. **Dendroica vigorsii.** PINE WARBLER.—Common in summer throughout the pine barrens of southern New Jersey. In Pennsylvania it is a rare or local summer resident in the following counties. Huntington, Mifflin, Center, Lycoming, Snyder, Warren, Wayne, Monroe and Pike. On May 14, 1914, I found a nest almost completed in northern Huntington County.

136. **Dendroica discolor.** PRAIRIE WARBLER.—Breeds abundantly throughout southern New Jersey but I have not found it in summer elsewhere. Data on five nests give: average set, 4 (sometimes 3), average date, May 26.

137. **Seiurus aurocapillus.** OVENBIRD.—Breeds commonly and generally through both states. Data on twenty-two nests give: average set, 4 or 5 (sometimes 3); average date, May 25 (May 16–June 28).

138. **Seiurus noveboracensis noveboracensis.** WATER-THRUSH.—A rare breeder in Warren, Clinton, Sullivan and Cambria Counties and common in the most impenetrable Rhododendron swamps of Wayne, Monroe and Pike Counties on the Pocono plateau. I have never found this bird along running streams but always in the swamps where moss covered logs and standing pools of water abound. The nest is very hard to discover. Data on six nests give average set, 4 (3–5), average date, May 26 (May 20–June 6).

139. **Seiurus motacilla.** LOUISIANA WATER-THRUSH.—A rare breeder in southern New Jersey (see Auk, January 1912, p. 105). In Pennsylvania it is rare in the southeastern counties but common along the lower Susquehanna, in Greene County in the southwest, and in Alleghany County. It is also common along the mountains of Center, Huntington and Mifflin Counties where I have found a number of nests, and over the Pocono plateau in Wayne, Monroe and Pike Counties in the same section inhabited by the other species but unlike it always frequenting the cool swift running mountain streams. Data on thirty nests give: average set, 5 (3–6), average date, May 12 (April 26–June 16).

140. **Oporornis formosa.** KENTUCKY WARBLER.—I have but one record of the Kentucky Warbler summering in southern New Jersey (see Stone's 'Birds of New Jersey'). In Pennsylvania it is a typical Carolinian species restricted to the southeastern and southwestern counties. Data on thirty-two nests give: average set, 5 (3–6); average date, May 25 (May 18–June 22).

141. **Oporornis philadelphia.** MOURNING WARBLER.—Breeds regularly in Warren County and I have found them summering regularly but not commonly on parts of Sullivan, Pike and Monroe Counties. A set of five eggs in my collection was taken in Warren County, June 9, 1911.

142. **Geothlypis trichas trichas.** MARYLAND YELLOW-THROAT.—Breeds commonly throughout; from the coast islands of New Jersey to the tops of the Alleghanies. Data on twenty-one nests give: average set, 4 (3-5); average date, May 28 for first sets, earliest May 19; for second sets, July 5, latest July 17.

143. **Icteria virens virens.** YELLOW-BREASTED CHAT.—A common breeder throughout New Jersey, being abundant in suitable localities in the southern counties. In Pennsylvania it is a common summer resident in the Carolinian fauna of the southern part of the state pushing north into Center County, where however, it is rare. It pushes up into mountain clearings as the forest disappears and I have found it in Pike, Wayne and Sullivan Counties, and in 1917 found a pair breeding on the very summit of Bald Knob, one of the highest mountains in Central Pennsylvania. Data on thirty-eight nests give: average set, 4 (3-5); average date, May 28 (May 20-June 25).

144. **Wilsonia citrina.** HOODED WARBLER.—Breeds commonly in the swamps of southern New Jersey. It is especially common in Cape May and Cumberland Counties and I have found it nesting as near to Philadelphia as Clementon, in 1915. In Pennsylvania it nests commonly in the Rhododendron and Laurel thickets of Franklin, Center, Huntington and Mifflin Counties and less frequently in Snyder and Juniata Counties. I have also found it present in the breeding season though rare, in Clinton, Lycoming and Warren where the fauna is pronouncedly Canadian. Data on twelve nests give: average set, 4 (3-5); average date, for four New Jersey nests, May 24; for eight Pennsylvania nests, June 1.

145. **Wilsonia canadensis.** CANADA WARBLER.—Breeds regularly in the mountains of Pennsylvania from Fayette, Juniata and Huntington Counties to Warren and Pike. Nowhere have I found it more abundant than in northern Huntington and southern Center Counties. Data on fifteen nests give: average set, 5 (sometimes 4); average date, May 27 (May 23-June 25).

146. **Setophaga ruticilla.** REDSTART.—Breeds regularly but not commonly in southern New Jersey from Ocean to Cape May Counties and more commonly from Belvidere northward along the Delaware. In Pennsylvania I have found it nesting along the Pennypack Creek near Philadelphia, where however it is rare. In the southeastern and southwestern sections it is rare and local and very scarce in the central parts of the state. In the northeast — Wayne, Monroe and Pike Counties — it is more plentiful but local as it is also in Warren County. Data on nine nests give: average set, 4 (3-5); average date, May 30 (May 24-June 19).

147. **Mimus polyglottos polyglottos.** MOCKINGBIRD.—On May 9, 1914, I saw a Mockingbird near Waynesburg, Greene County, Pa., and was

told by an old collector that they had bred on his farm for several years and that he had found their nests. I have not found them nesting anywhere in Pennsylvania or New Jersey.

148. **Dumetella carolinensis.** CATBIRD.—An abundant summer resident throughout both states, but less numerous in the mountainous counties of Pennsylvania. Data on 110 nests give average set, 4 (3-5); average date, June 1 (May 22-July 10).

149. **Toxostoma rufum.** BROWN THRASHER.—Common in the lower parts of both states but less abundant or rare in the mountainous sections. Data on thirty-two nests give: average set, 4 (3-5); average date, May 12 (May 4-June 21).

150. **Thryothorus ludovicianus ludovicianus.** CAROLINA WREN.—Breeds commonly from Burlington and Camden Counties south to Cape May, New Jersey, and less frequently up the Delaware River to Frenchtown. In Pennsylvania I have found it as a summer resident in the following counties: Chester, Delaware, Philadelphia, Montgomery, Bucks, Lancaster, York, Dauphin, Cumberland, Perry (rare), Greene and Washington. Data on thirteen nests give: average set, 5 (4-6); average date, April 15 (April 5-June 18).

151. **Thryomanes bewicki bewicki.** BEWICK'S WREN.—Breeds fairly commonly in Greene County, Pennsylvania, where I have found several nests. It is also a regular though rare breeding bird in Center County, where at least one pair nests every year. In Huntington County it nests rarely. Two sets of eggs in my collection from Waynesburg, Greene County, were taken on May 6, 1911 (6 eggs), and May 10, 1914 (7 eggs).

152. **Troglodytes aëdon aëdon.** HOUSE WREN.—Common summer resident in southern New Jersey and in Pennsylvania east of the Alleghanies. West of the mountains it seems to be more local and in Greene County is largely replaced by the previous species. Data on forty-seven nests give: average set, 6 or 7 (5-8); average date, May 28 (May 22-July 29).

153. **Nannus hiemalis hiemalis.** WINTER WREN.—I have found this species summering in the following counties: Warren, Clinton, Sullivan, Pike, Monroe and Wayne, but have found more of the sham nests than the occupied ones. Data on three nests give: average set, 4 or 5; average date, May 20.

154. **Cistothorus stellaris.** SHORT-BILLED MARSH WREN.—One of my most interesting New Jersey records is of a colony of these birds nesting on the salt marsh in lower Burlington County. They inhabited the thick marsh grass, not the cattails or higher growth, and nest in the grass close to the ground. Two sets of eggs in my collection were taken August 4, 1913, and consist of four and five eggs respectively. Another nest found on the same day contained five young birds. These were evidently a second nesting. In Pennsylvania I have noted the Short-billed Marsh Wren in Center County as late as May 30 but have no evidence of its nesting.

155. **Telmatodytes palustris palustris.** LONG-BILLED MARSH WREN.—Nests commonly all along the New Jersey coast marshes from Jersey City to Cape May, and along the Delaware River north to Trenton, N. J., and Bucks County, Pa. Data on 196 nests give: average set, 5 (3–7); average date, June 4 (May 26–July 18).

156. **Certhia familiaris americana.** BROWN CREEPER.—I have found this bird in summer in Sullivan and Warren occasionally, but have never found its nest. It has however been taken both in the mountains of Pennsylvania and New Jersey by others.

157. **Sitta carolinensis carolinensis.** WHITE-BREASTED NUTHATCH.—A regular but not common breeder in southern New Jersey and southeastern Pennsylvania and more common throughout the rest of the latter state. Very common in Center County. Data on fourteen nests, all but two from Center Co., give: average set, 7 or 8 (5–9); average date, April 28 (April 22–May 19).

158. **Sitta canadensis.** RED-BREASTED NUTHATCH.—I have met with this bird in summer only uncommonly in Warren and Sullivan Counties, and have not found its nest although they have been found in the latter county by others. In 1917 the birds remained in Pike County until June 9 but none bred.

159. **Bæolophus bicolor.** TUFTED TITMOUSE.—Nests fairly commonly in southern New Jersey and in southeastern and southwestern Pennsylvania within the limits of the Carolinian fauna. I have also found it rarely in summer in the river valleys in Pike and Center Counties. Two nests that I have found are as follows: 1, Philadelphia, Pa., May 25, 1906, six hatching eggs and one young; 2, Tinicum, Delaware County, Pa., May 10, 1907, six eggs.

160. **Penthestes atricapillus atricapillus.** BLACK-CAPPED CHICKADEE.—A regular breeder in the mountainous parts of Pennsylvania from Fayette and Huntington Counties north to Warren and Pike. Data on seven nests give: average set, 7 (5–8); average date, May 10 (May 4–June 10).

161. **Penthestes carolinensis carolinensis.** CAROLINA CHICKADEE.—I have found this species breeding commonly in southern New Jersey from Burlington County south and in Greene County in southwestern Pennsylvania. Data on ten nests give: average set, 7 (5–8); average date, New Jersey (four nests) May 15; Pennsylvania (six nests) May 9.

162. **Regulus satrapa satrapa.** GOLDEN-CROWNED KINGLET.—A rare summer resident of Pike County and rather more common in Monroe but I have never found its nest.

163. **Poliioptilla cærulea cærulea.** BLUE-GRAY GNATCATCHER.—I have found this bird to be a very common summer resident of Greene, Washington and Alleghany Counties in southwestern Pennsylvania. Data on thirty-six nests give: average set, 5 (sometimes 4); average date, May 14 (May 7–May 25).

164. **Hylocichla mustelina.** WOOD THRUSH.—Breeds commonly

throughout New Jersey and Pennsylvania but becomes local in the northern mountainous portion of the latter state. Data on eighty-four nests give: average set, 4 (3-5); average date, New Jersey (twelve nests) May 22; southern Pennsylvania (sixty-two nests) May 26; northern Pennsylvania (ten nests), June 2.

165. **Hylocichla fuscescens fuscescens.** VEERY.—I have found the Veery breeding regularly in Sullivan, Wyoming, Pike, Wayne and Monroe Counties, Pennsylvania, while west of the Alleghanies it is much more abundant and I have summer records from the following counties: Bedford, Fayette, Clarion, Blair, Venango, Warren and Erie. I have had no experience in northern New Jersey where it also nests. Data on five nests give: average set 4 (sometimes 3); average date, June 1 (May 26-June 29).

166. **Hylocichla ustulata swainsonii.** OLIVE-BACKED THRUSH.—I have found this thrush summering in Warren, Pike, and Monroe Counties, Pennsylvania. A set of four eggs from the last county taken, June 8, 1910, is in my collection.

167. **Hylocichla guttata pallasii.** HERMIT THRUSH.—I have found the Hermit in summer in Warren, Monroe, Sullivan, Pike and Wayne Counties, Pennsylvania. Data on five nests give: average set, 4 (sometimes 3); average date, June 10 (May 30-June 23).

168. **Planesticus migratorius migratorius.** ROBIN.—Breeds abundantly throughout both states. Data on 346 nests give: average set, 4 (2-5); average date, for first sets April 20 (earliest, April 18); for second sets May 25; third sets July 4. In fixing dates for later sets four pairs were studied which raised three broods annually on porches near my home at State College, for three years in succession.

169. **Sialia sialis sialis.** BLUEBIRD.—Breeds commonly throughout both states, being least abundant in the neighborhood of Philadelphia and in the wilder, northern mountainous section. Data on sixty-nine nests give: average set, 5 (4-6); average date, for first sets, April 15, earliest, April 4; for second sets, June 25, latest, August 2.